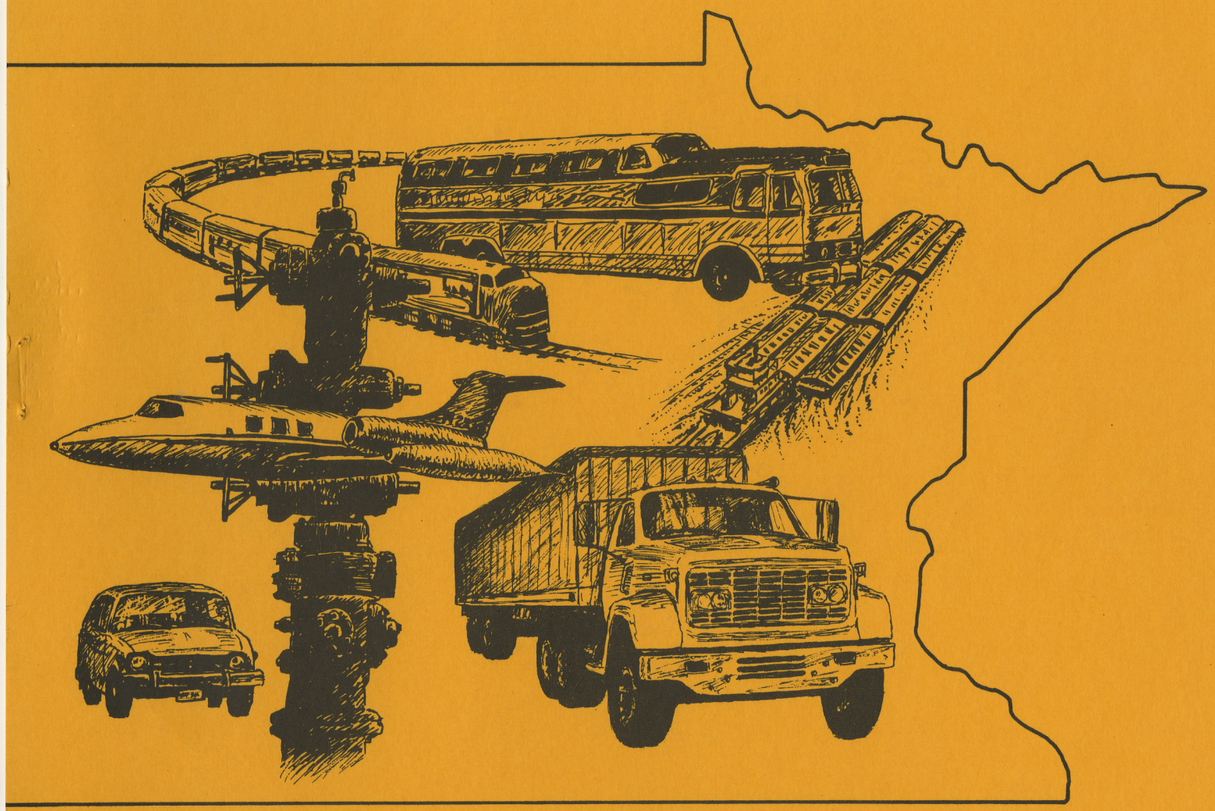
Transportation Analysis



PREPARED BY
THE MINNESOTA DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION
PEOPLE AND GOODS MOVEMENT SECTION

TA-M 316, T.H. 52 from

T.H. 110 to Kellogg Boulevard

July 1984

SF-00006-03

STATE OF MINNESOTA

DEPARTMENT OF TRANSPORTATION
Room 820

Office Memorandum

TO: Jerry Skelton
Transportation Planner
District 9 - Oakdale

DATE: July 20, 1984

FROM: Allan Pint
Traffic Forecasts Engineer
Traffic Forecast Unit

PHONE: 296-0217

SUBJECT: TA-M 316, T.H. 52 from T.H. 110 to Kellogg Boulevard

Enclosed are the requested year 2010 Average Weekday Traffic (AWDT) and Peak Hour Volumes on T.H. 52 from T.H. 110 to Kellogg Boulevard. Projected traffic volumes for the year 1990 may be obtained by factoring the enclosed year 2010 figures by 0.75.

The analysis for this report included the following materials:

1) 1982 hourly volume counts at the following intersections: Mendota, Marie, Lothenbach, Wentworth, Thompson, Emerson, Moreland, Butler, Bernard, Annapolis, Belvidere, Curtice, Concord, Wood and Fillmore (supplied to the Traffic Forecast Unit by District Nine).

2) Historical (1972-1982) ADT counts taken by the Mn/DOT Data Collection Unit along T.H. 52 and several parallel streets (T.H. 149, T.H. 3, Concord, Wabasha and Delaware) at major cross streets.

3) Linear projections of historical counts.

4) Assignments of the year 2000 zonal vehicular interchanges to the network by the Mn/DOT computer model, System 3E Year 2000 Network (4/17/84) and System 3C Year 1980 Network (3/27/84).

5) Screenline volumes taken at the Mississippi River Bridges, Butler Street and T.H. 110.

6) 1984 volume counts taken by Traffic Forecast Unit staff at the following intersections along T.H. 52: T.H. 110, Mendota, Marie, Lothenbach, Wentworth, Thompson, Emerson, Moreland, Butler, Bernard, Annapolis, Curtice, Concord, Wood, Plato, Fillmore and Kellogg.

Year 2000 volume assignments by the Mn/DOT computer model to T.H. 52 from T.H. 110 to Kellogg Boulevard were found to be significantly less than 1982 counted volumes (ranging from 20 to 50 percent lower at selected locations). In addition, screenlines were taken at three locations to determine whether or not corridor volumes in the study area showed greater increases than T.H. 52 volumes for the twenty year time span 1980 to 2000. At each screenline location (Mississippi

River Bridges, T.H. 110 and Butler Street) ADT volumes were summed for all intersections from T.H. 149 to Concord Street for both years 1980 (System 3C) and 2000 (System 3E). The increase of the corridor volumes over this twenty year time period was found to be fairly small (ranging from 15 to 50% at selected locations).

There are several factors which indicate that volumes on T.H. 52 should increase to a somewhat greater extent than projected by the Mn/DOT computer model. Analysis of historical counts showed sizable increases in ADT volumes from 1972 to 1982. A straight line projection of these counts to the year 2000 at the three screenline locations shows increases which range from 60 to 219 percent for the same twenty year time period. Also, a survey of land use in the study area indicated that undeveloped areas in the southern portion of the project area could realize new growth in future years.

Traffic counts were taken along T.H. 52 by Forecast Unit staff in order to develop a present day schematic of AWDT volumes along the specified route. 1984 AWDT and turning movements were determined from these figures along with hourly counts provided by District Nine.

The 1984 volumes were expanded to the year 2010 based on analysis of historical trend and comparisons of various Mn/DOT computer model assignments. The completion of T.H. 35E and extention of T.H. 3 between T.H. 494 and T.H. 55 were also significant factors in determining the final year 2010 ADT volumes on T.H. 52. Peak hour volumes are based on three factors: 1) System 3E year 2000 peak hour percentages, 2) a survey of the land use in the study area, and 3) peak hour percentages of District counts.

Attachments

TA-M316
TH 52: 110 to Kellogg Blvd.
Year 2010 Volumes
Legend
2250-AWDT
195P-P.M. PEAK
270A-A.M. PEAK
N
TH 52
Kellogg Blvd.
Fillmore Ave.
Plato Blvd.
Wood St.
Concord St.
Curtice St.
Annapolis St.
Bernard
Butler
Moreland
Emerson Ave.
Thompson Ave.
Wentworth Ave.
Lothenbach Ave.
Marie Ave.
Mendota Rd.
TH 110